

Final Report

Herpetological Inventory of Buck Island Reef National Monument

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Introduction

Buck Island is a 90 ha island that lies approximately 2.5 km north of St. Croix, U.S. Virgin Islands (Fig. 1). Buck Island Reef National Monument (BUIS) was authorized in 1961 to protect the significant coral reef and marine resources around Buck Island. Although BUIS currently comprises 356 ha, the majority (75%) is marine (Fig. 2). Buck Island is a very dry island with no permanent fresh water source. Part of the shoreline consists of wide, sandy beach and the rest is steep, rocky outcrops. The island has one small salt pond in the low southeastern portion of the island dominated by manchineel (*Hippomane mancinella*; Fig. 3). The rest of the island is hilly with extremely xeric slopes (Fig. 4) and semi-mesic drainages known as guts (Fig. 5). The highest point of Buck Island is 140m above sea level.

Only a limited amount of historical data exists on the herpetofauna of Buck Island. Some collections of herpetofauna were made on the island, and all of the historical records for Buck Island are reported in Schwartz and Henderson (1991). All of the species with historical records from Buck Island are still present on the island, but no thorough survey of the herpetofauna was ever reported. It is possible that other species occurred on Buck Island historically, but were lost after the introduction of the black rat and the mongoose. The objective of this study was to completely inventory the amphibians and reptiles of BUIS.

Methods

We surveyed amphibians and reptiles at BUIS twice during 2001. The first survey occurred from 20 June 2001 to 21 June 2001. During this survey five observers combed the island searching for any signs of amphibians and reptiles. All habitats on the island were searched. We sifted through leaf litter, turned logs and rocks, searched the axils of bromeliads, and scanned the branches of trees and shrubs. We conducted a day and a night survey on 20 June 2001, and returned for another day survey on 21 June 2001. We noted at this time that the island was extremely dry, and no moisture was found under the leaf litter or in refugia such as bromeliad phytotelmata. Specimens of all

reptiles captured (except marine turtles) were collected and photographed and preserved in ethanol as vouchers (Appendix 1).

Our second survey occurred from 17 October 2001 to 18 October 2001. Searches were conducted during both day and night on both of these days. We conducted a similar survey to the one before, again using as many as five observers at one time to search. We captured more animals than we needed to preserve as vouchers, so many were measured, snout-to-vent length (SVL), and released. This survey occurred directly after a significant rainfall on the island, and we found moist refugia and water in bromeliad axils.

In addition to the two survey trips to the island, an exhaustive literature search was conducted to look for records of reptile and amphibian specimens from Buck Island to attempt to compare the current herpetofauna to the historical one. An annotated bibliography of the non-marine herpetofauna was created (Appendix 2).

Results

Six of the seven species of reptiles known to have occurred on Buck Island (Table 1) were detected in this study. Three of the species were lizards, and three were marine turtles. The only species previously reported from the island that was not detected was the St. Croix ameiva (*Ameiva polops*). Only one introduced species was detected, the tropical house gecko (*Hemidactylus mabouia*). No amphibians were detected on the island, even after the October 2001 rainfall event.

Ameiva polops:

No *A. polops* were found on Buck Island in this survey, and none have been observed on the island since 1974 (Philibosian and Yntema 1976). No historical record exists for *A. polops* on Buck Island, but we could find no list of species for Buck Island from before the introduction of the black rat (*Rattus rattus*) and the small Indian mongoose (*Herpestes auropunctatus*). Sixteen *A. polops* were introduced onto Buck Island before 1971, and some breeding did occur (Philibosian and Ruibal 1971). However, this was before the extirpation of the mammalian predators and all of the *A. polops* on the island disappeared (Philibosian and Yntema 1976).

A. polops is a federally endangered species with a range restricted to Green Cay and Protestant Cay near St. Croix. Now that rats and mongooses have been removed from Buck Island, it should also serve as a suitable site for *A. polops*. Another introduction of *A. polops* onto Buck Island would substantially increase the available habitat for the species and provide it a better chance of surviving catastrophic events like hurricanes.

Anolis acutus:

Thirty *A. acutus* (Fig. 6) individuals were captured and measured for this study (Table 2), and 14 of these were collected as voucher specimens. SVL of *A. acutus* captured on Buck Island ranged from 23 to 63mm, with a mean of 51mm (S.E.=8.59mm). *A. acutus* was found on the ground, on trees, and on other vegetation. They attempted to escape capture by climbing trees. *A. acutus* was found throughout the island from very

close to the beach to the highest point on the island. They were rarely seen in areas where they were completely exposed to direct sun and predators.

A. acutus is known to reach extremely large population densities (Ruibal and Philibosian 1974), and the Buck Island population appears to be no exception. The Buck Island population may be more abundant than many St. Croix populations because of the absence of mammalian predators and many avian predators like cattle egrets (*Bulbucis ibis*, Gassett et al. 2000).

Hemidactylus mabouia:

Four *H. mabouia* (Fig. 7) were observed on Buck Island during our second visit to the island (17-19 October 2001). Only two individuals were captured (SVL 50 and 54mm), and both of these individuals were collected as voucher specimens. We only observed *H. mabouia* along the beach on the south side of Buck Island. All individuals were observed on wooden stakes (used for marking the locations of sea turtle nests) and on manchineel snags.

H. mabouia, native to Africa, was introduced to St. Croix. It is primarily an edificarian species currently found throughout the West Indies (Schwartz and Henderson 1991). *H. mabouia* is a diet generalist and is capable of switching between hard and soft bodied prey quite readily, making it ideal for colonization of new habitats (Zamprognio and Teixeira 1998). *H. mabouia* is tolerant of very dry conditions (Meshaka 1996), another trait that makes it suited to Buck Island. *H. mabouia* has not been shown to be threat to native vertebrates anywhere it occurs (Meshaka 1996; Meshaka 2001).

Sphaerodactylus beattyi:

Fourteen *S. beattyi* (Fig. 8) individuals were captured and measured for this study (Table 3), and 11 voucher specimens of *S. beattyi* were collected from Buck Island. SVL ranged from 14 to 32mm with a mean of 24mm (S.E.=5.61mm). All *S. beattyi* were found in the litter or under rocks in the guts of the island. No *S. beattyi* were found on the extremely dry slopes of the island, and they were not found in the low area near the salt pond.

No other *Sphaerodactylus* species were found on Buck Island, although *S. macroplepis* occurs natively on St. Croix. *S. beattyi* is xerophilic (Grant and Beatty 1944), and may be more tolerant of the dry conditions on Buck Island. Not only is *S. beattyi* endemic to St. Croix, it is only found on the eastern end of the island. *S. macroplepis* has a large range encompassing Puerto Rico, U.S. and British Virgin Islands, Anguilla, St. Martin, and St. Barts (Schwartz and Henderson 1991; Malhotra and Thorpe 1999). It appears that the habitat on Buck Island is not suitable for *S. macroplepis*, probably because conditions are too dry for such a generalist.

Marine turtles:

Sea turtles were encountered on our survey trips to Buck Island, but these were opportunistic encounters. We did not sample for sea turtles, which was considered outside the scope of this project. However, we were able to document the presence of an adult female Atlantic Hawksbill (*Eretmochelys imbricata*) as she was excavating a nest. We also observed hatchlings from nests of the Atlantic hawksbill, the leatherback sea turtle (*Dermochelys coriacea*), and the green sea turtle (*Chelonia mydas*). The

completely undeveloped beach of Buck Island is a very important nesting site for the Atlantic hawksbill (Wibbels et al. 1999).

Discussion

Although the herpetofauna of BUIS is small, it is important. Two of the three lizards on the island are endemic to St. Croix and the surrounding cays. All three of the marine turtles are protected by international treaty, and the island is a significant breeding site for the Atlantic Hawksbill. The island may have once had a natural population of the federally endangered St. Croix ameiva. Now that mongoose and rat eradication has succeeded it may again serve as suitable habitat for the St. Croix Ameiva if resource managers decide to attempt another introduction.

The only introduced species detected on Buck Island, the tropical house gecko, is ubiquitous throughout the West Indies (Schwartz and Henderson 1991). It is easily transported on boats and in building materials, the likely source of introduction onto Buck Island. This species is primarily edificant, and has not been shown to interact negatively with the native herpetofauna elsewhere (Meshaka 1996). The threat from this species appears negligible.

The eradication of the mongoose and the black rat from Buck Island has probably been advantageous to the herpetofauna. This has eliminated a significant source of nest predation on marine turtles. It has probably reduced predation on the lizard fauna of Buck Island as well. The current resource management strategy of maintaining rodent eradication should allow the native fauna to thrive. Further study comparing the density of populations of *Sphaerodactylus beattyi* and *Anolis acutus* on Buck Island with populations on St. Croix where mammalian predators are present might be interesting. A comparison study could show what effect the mammals have had on the herpetofauna on St. Croix.

The herpetofauna of St. Croix is relatively small and highly endemic compared to similar islands in that part of the Caribbean (Philibosian and Yntema 1977). Of the ten non-marine reptile and amphibian species native to St. Croix, five (50%) are endemic to the island and its surrounding cays. Two species of the original native herpetofauna are now extinct on St. Croix, the endemic St. Croix ground snake (*Alsophis sancticrucis*) and the slippery-back skink (*Mabuya mabouia*). Buck Island appears to be too dry to support amphibians, but it does protect two of the three extant endemic reptiles. If *Ameiva polops* is reintroduced to the island it will protect all three of the reptiles endemic to St. Croix.

Literature Cited

- Gassett, J.W., T.H. Folk, K.J. Alexy, K.V. Miller, B.R. Chapman, F.L. Boyd, and D.I. Hall. 2000. Food habits of Cattle Egrets on St. Croix, U.S. Virgin Islands. *Wilson Bulletin* 112:268-271.
- Grant, C., and H.A. Beatty. 1944. Herpetological notes on St. Croix, Virgin Islands. *Herpetologica* 2:110-113.

- Meshaka, W.E. 2001. The Cuban treefrog in Florida. University Press of Florida, Gainesville, FL, 192 pp.
- Meshaka, W.E., and B.A. Moody. 1996. The Old World tropical house gecko (*Hemidactylus mabouia*) on the Dry Tortugas. Florida Science 59:115-117.
- Philibosian, R., and J.A. Yntema. 1976. Records and status of some reptiles and amphibians in the Virgin Islands, I, 1968-1975. Herpetologica 32:81-85.
- Philibosian, R., and R. Ruibal. 1971. Conservation of the lizard *Ameiva polops* in the Virgin Islands. Herpetologica 27:450-454.
- Philibosian, R., and J.A. Yntema. 1977. Annotated checklist of the birds, mammals, reptiles, and amphibians of the Virgin Islands and Puerto Rico. Information Services, Frederiksted, St. Croix, 48 pp.
- Ruibal, R., and R. Philibosian. 1974. The population ecology of the lizard *Anolis acutus*. Ecology 55:525-537.
- Schwartz, A., and R.W. Henderson. 1991. Amphibians and reptiles of the West Indies: descriptions, distributions, and natural history. University of Florida Press, Gainesville, FL, 720 pp.
- Malhotra, A., and R.S. Thorpe. 1999. Reptiles and Amphibians of the eastern Caribbean. Macmillan Education Ltd., Hong Kong, 134 pp.
- Wibbels, T., Z. Hillis-Starr, and B. Phillips. 1999. Female-biased sex ratios of hatchling hawksbill sea turtles from a Caribbean nesting beach. Journal of Herpetology 33:142-144.
- Zamprongno, C., and R.L. Teixeira. 1998. Food Habits of the tropical house gecko *Hemidactylus mabouia* (Reptilia, Gekkonidae) from a sandy coastal plain of Espirito Santo, eastern Brazil. Revista Brasileira de Biologia 58:143-150.

Table 1: List of the herpetofauna of Buck Island.

Order	Family	Genus	Species	Author	Common Name
Squamata/Sauria	Teiidae	<i>Ameiva</i>	<i>polops</i>	Cope, 1863	St. Croix ameiva
Squamata/Sauria	Gekkonidae	<i>Sphaerodactylus</i>	<i>beattyi</i>	Grant, 1937	cotton ginner dwarf gecko
Squamata/Sauria	Polychrotidae	<i>Anolis</i>	<i>acutus</i>	Hallowell, 1857	St. Croix anole
Squamata/Sauria	Gekkonidae	<i>Hemidactylus</i>	<i>mabouia</i>	Moreau de Jonnes, 1818	tropical house gecko
Testudines	Cheloniidae	<i>Chelonia</i>	<i>mydas</i>	Linnaeus, 1758	green turtle
Testudines	Cheloniidae	<i>Eretmochelys</i>	<i>imbricata</i>	Linnaeus, 1766	Atlantic hawksbill
Testudines	Dermochelyidae	<i>Dermochelys</i>	<i>coriacea</i>	Linnaeus, 1766	leatherback

Table 2: SVL of *Anolis acutus* individuals captured on Buck Island.

CaptureID	SVL (mm)	Age	Collected
29	23	Juvenile	
21	43	Adult	*
15	43	Adult	*
22	44	Adult	*
36	44	Adult	
24	45	Adult	*
37	45	Adult	
33	46	Adult	
23	46	Adult	*
14	46	Adult	*
32	47	Adult	
35	47	Adult	
38	47	Adult	
39	48	Adult	
16	49	Adult	*
41	50	Adult	
17	52	Adult	*
31	52	Adult	
19	54	Adult	*
34	56	Adult	
25	56	Adult	*
46	57	Adult	
13	58	Adult	*
18	59	Adult	*
45	60	Adult	
30	61	Adult	
40	62	Adult	
26	62	Adult	*
20	63	Adult	*
47	63	Adult	

Table 3: SVL of *Sphaerodactylus beattyi* individuals captured on Buck Island.

CaptureID	SVL (mm)	Age	Collected
11	14	Juvenile	*
2	16	Juvenile	*
9	17	Juvenile	*
7	20	Juvenile	*
4	20	Juvenile	*
6	24	Adult	*
10	25	Adult	*
12	26	Adult	*
3	26	Adult	*
8	27	Adult	*
5	27	Adult	*
43	29	Adult	
42	31	Adult	
44	32	Adult	

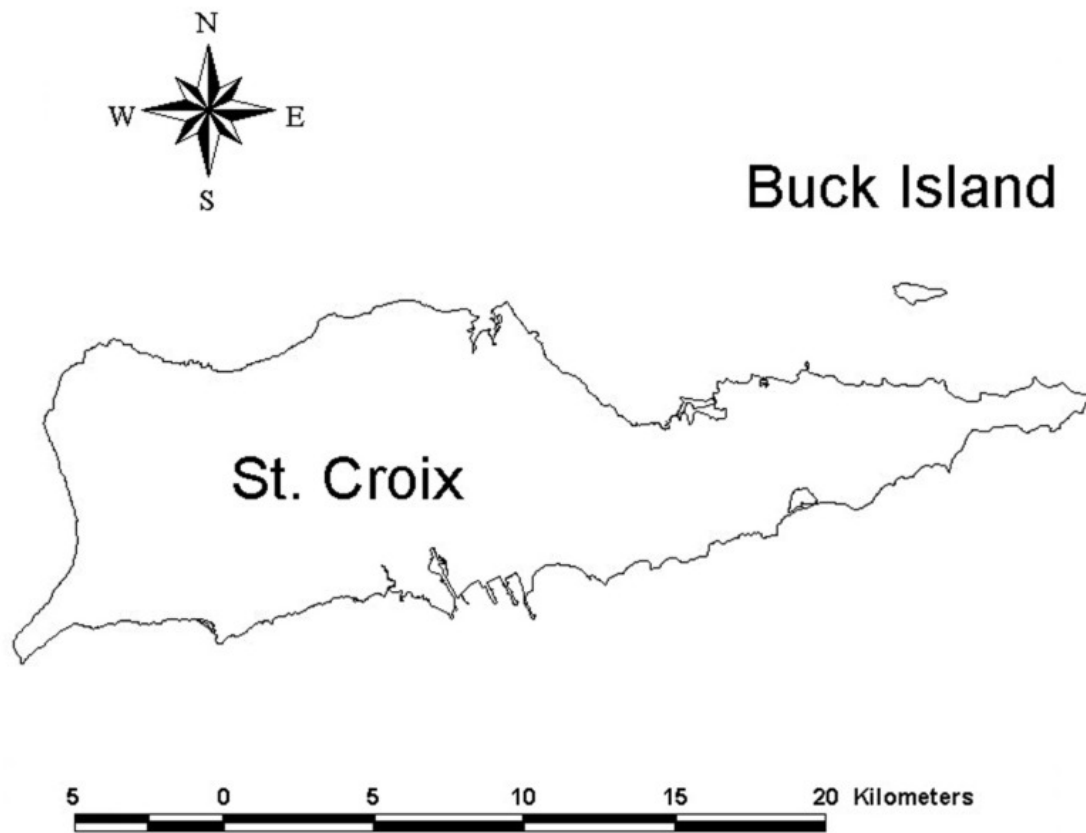


Figure 1: Map of St. Croix showing location of Buck Island.

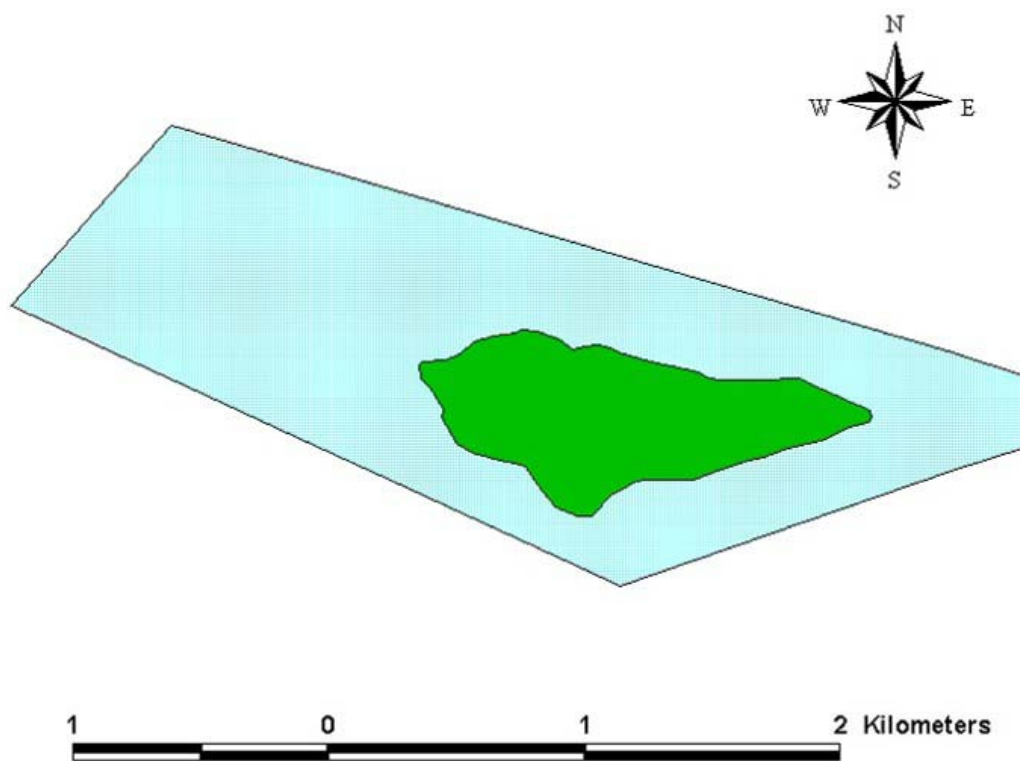


Figure 2: Map of Buck Island Reef National Monument showing Buck Island and the official monument boundary.



Figure 3: View of the salt pond and manchineel on the lower part of Buck Island, St. Croix in the background.



Figure 4: View of the xeric upland habitat of Buck Island.



Figure 5: Photograph of gut habitat on Buck Island showing dense hardwood understory.



Figure 6: Specimen of *Anolis acutus* collected from Buck Island.



Figure 7: Specimen of *Hemidactylus mabouia* collected on Buck Island.



Figure 8: Specimen of *Sphaerodactylus beattyi* collected from Buck Island.

Appendix 1

Complete list of all specimens collected from BUIS.

ID Number	Genus	Species	Collection Date	Locality	Collector
1	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
2	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
3	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
4	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
5	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
6	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
7	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
8	Sphaerodactylus	beattyi	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
9	Sphaerodactylus	beattyi	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
10	Sphaerodactylus	beattyi	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
11	Sphaerodactylus	beattyi	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
12	Hemidactylus	mabouia	10/17/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
13	Hemidactylus	mabouia	10/17/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
14	Anolis	acutus	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
15	Anolis	acutus	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
16	Anolis	acutus	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
17	Anolis	acutus	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
18	Anolis	acutus	10/18/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
19	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
20	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
21	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle

22	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
23	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
24	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
25	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
26	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle
27	Anolis	acutus	6/20/2001	Buck Island, St. Croix, U.S. Virgin Islands	J.H. Waddle

Appendix 2

Annotated bibliography of the non-marine herpetofauna of Buck Island.

Anolis acutus

- Gassett, J.W., T.H Folk, K.J. Alexy, K.V. Miller, B.R. Chapman, F.L. Boyd, and D.I. Hall. 2000. Food habits of Cattle Egrets on St. Croix, U.S. Virgin Islands. *Wilson Bulletin*. 112:268-271.
Ecology- Reports that *Anolis acutus* is the major vertebrate prey item of the Cattle Egrets on St. Croix.
- Lazell, J.D. 1972. The anoles (Sauria, Iguanidae) of the Lesser Antilles. *Bulletin of the Museum of Comparative Zoology* 143:1-115.
Distribution- Describes distribution of *Anolis acutus* on Christiansted, St. Croix, U.S. Virgin Islands. Illustrations.
- MacLean, W.P. 1982. Reptiles and amphibians of the Virgin Islands. Macmillan Education Limited, London, UK, 52 pp.
Field Guide- Field guide with description and natural history information. Illustrations.
- Philibosian, R. 1975. Territorial behavior and population regulation in the lizards *Anolis acutus* and *A. cristatellus*. *Copeia* 1975:428-444.
Ecology- Describes behavior of *A. acutus* and another Caribbean anole..
- Rose, B. 1982. Food intake and reproduction in *Anolis acutus*. *Copeia* 1982:322-330.
Ecology- Investigates relationship between food intake and reproduction of *Anolis acutus* on St. Croix.
- Ruibal, R., and R. Philibosian. 1974. The population ecology of the lizard *Anolis acutus*. *Ecology* 55:525-537.
Ecology- Reports extremely high densities of *A. acutus*.
- Ruibal, R., and R. Philibosian. 1974. Aggression in the lizard *Anolis acutus*. *Copeia* 1974:349-357.
Ecology- More information on the behavior of *A. acutus*.
- Ruibal, R., R. Philibosian, and J.L. Adkins. 1972. Reproductive cycle and growth in the lizard *Anolis acutus*. *Copeia* 1972:509-518.
Ecology- Reproduction and growth.

Ameiva polops

- Cope, E.D. 1895. The Batrachia and Reptilia of the University of Pennsylvania West Indian Expedition of 1890 and 1891. *Proceedings of the Academy Natural Science of Philadelphia* 46:429-442.
Description- Unable to obtain. Illustration.
- Grant, C. 1937. Herpetological notes with new species from the American and British Virgin Islands, 1936. *J. Agr. Univ. Puerto Rico* 21:503-22.
Ecology- Unable to obtain. Illustration.
- Heatwole, H., and F. Torres. 1967. Distribution and geographic variation of the ameivas of Puerto Rico and the Virgin Islands. *Studies of the Fauna of Curacao and Caribbean Islands* 24:63-111.
Ecology- Unable to obtain. Illustration.
- MacLean, W.P. 1982. *Reptiles and amphibians of the Virgin Islands*. Macmillan Education Limited, London, UK, 52 pp.
Field Guide- Field guide with description and natural history information. Illustration.
- Neill, W.T. 1958. The occurrence of amphibians and reptiles in saltwater areas, and a bibliography. *Bulletin of Marine Sciences of the Gulf of Mexico and the Caribbean* 8:1-97.
Ecology- Unable to obtain.
- Philibosian, R., and J.A. Yntema. 1976. Records and status of some reptiles and amphibians in the Virgin Islands. I. 1968-1975. *Herpetologica* 32:81-85.
Distribution. Reports that the introduced *Ameiva polops* on Buck Island appear to have been extirpated by mongooses.
- Philibosian, R., and J.A. Yntema. 1977. Annotated checklist of the birds, mammals, reptiles, and amphibians of the Virgin Islands and Puerto Rico. Information Services, Frederiksted, St. Croix, 48 pp.
Checklist- Checklist with photograph. Illustration.
- Philibosian, R., and J.A. Yntema. 1978. Records and status of some reptiles and amphibians in the Virgin Islands. II. 1975-1976. *Herpetologica* 34:47-51.
Status- Reports that the authors have submitted a proposal to list *A. polops* as an endangered species.
- Philibosian, R., and R. Ruibal. 1971. Conservation of the lizard *Ameiva polops* in the Virgin Islands. *Herpetologica* 27:450-454.
Distribution- Reports that 16 *Ameiva polops* were introduced on Buck Island and breeding had occurred.

Hemidactylus mabouia

- Coy Otero, A., and N. Lorenzo Hernandez. 1982. Lista de los helmintos parasitos de los vertebrados cubanos. *Poeyana* 235:1-57.
Ecology- Parasites found in *H. mabouia*.
- Grant, C. 1932. The hemidactyls of the Porto Rico region. *J. Dept. Agr. Puerto Rico* 16:51-57.
Ecology- Unable to obtain. Illustration.
- Grobman, A.B. 1983. The lizards of Virgin Gorda. Naturegraph Publ., Inc., Happy Camp, CA, 35pp.
Field Guide- Field guide with description and illustrations.
- Kluge, A.G. 1969. The evolution and geographical origin of the New World *Hemidactylus mabouia-brookii* complex (Gekkonidae, Sauria). *Misc. Publ. Mus. Zool. Univ. Michigan* (138):1-78.
Distribution- Phylogenetics and phylogeography of *Hemidactylus*..
- MacLean, W.P. 1982. Reptiles and Amphibians of the Virgin Islands. Macmillan Education Limited, London, UK. 52 pp.
Field Guide- Field guide with description and natural history information. Illustration.
- Meshaka, W.E., and B.A. Moody. 1996. The Old World tropical house gecko (*Hemidactylus mabouia*) on the Dry Tortugas. *Florida Scientist* 59:115-117.
Distribution- Describes occurrence of *Hemidactylus mabouia* on the Dry Tortugas, and discusses diet.
- Pendlebury, G.B. 1972. Nesting sites, eggs, and young of *Hemidactylus mabouia* from Carriacou, West Indies. *Herpetological Review* 4:203.
Ecology- Information on reproduction.
- Rivero, J.A. 1978. Los anfibios y reptiles de Puerto Rico. *M. Pareja Montana* 16, Barcelona, Espana, 148 pp.
Field guide- Contains description and information about *H. mabouia* on Puerto Rico.
- Self, J.T., and J. Garcia Diaz. 1961. *Raillietiella (Heymonsia) hemidactyli* Heft, 1934, from *Hemidactylus mabouia* in Puerto Rico, with a correction of the identity of *R. hebtihamata* Self and Kuntz, 1961. *Journal of Parasitology* 47:912.
Ecology- Unable to obtain.
- Zamprongno, C., and R.L. Teixeira. 1998. Food Habits of the tropical house gecko *Hemidactylus mabouia* (Reptilia, Gekkonidae) from a sandy coastal plain of Espirito Santo, Eastern Brazil. *Rev. Bras. Biol.* 58:143-150.
Ecology- Describes diet of *Hemidactylus mabouia* in Espirito Santo, and notes that the diet consists mainly of arthropods.

Sphaerodactylus beattyi

- Grant C., and H.A. Beatty. 1944. Herpetological notes on St. Croix, Virgin Islands. *Herpetologica* 2:110-113.
Ecology- Reports that *S. beattyi* is xerophilic.
- Grant, C. 1937. Herpetological notes with new species from the American and British Virgin Islands, 1936. *J. Agr. Univ. Puerto Rico* 21:503-22.
Description- Unable to obtain. Illustration.
- MacLean, W.P. 1982. Reptiles and Amphibians of the Virgin Islands. Macmillan Education Limited, London, UK, 52 pp.
Distribution- Reports that *S. beattyi* occurs on Buck Island. Illustration.
- Thomas, R., and A. Schwartz. 1966. *Sphaerodactylus* (Gekkonidae) in the Greater Puerto Rico region. *Bulletin of the Florida State Museum* 10:193-260.
Description- Describes new subspecies from south coast of St. Croix. Illustration.